Claims

1. An electrical and/or electronical device, particularly a power supply, (8) including a casing, an electric and/or electronic circuit (1) with a heat generating component (5) and at least one fan (7), the heat generating component being in thermal contact with a wall portion of the casing, characterised in that the casing includes a double wall portion with an inner wall portion (2.2) and an outer wall portion (3.2) defining an air duct (4) between the inner wall portion and the outer wall portion, said heat generating component being in thermal contact with the inner wall portion, said double wall portion being a heat sink and said at least one fan being arranged such that an air flow produced by said at least one fan is directed through said air duct.

2. A device according to claim 1, characterised in that said casing is made of a metal with a high coefficient of thermal conductivity, particularly of aluminium.

3. A device according to claim 1 or 2, characterised in that said casing is substantially cubical in shape and includes a bottom (2) and a cover (3) fitted together in thermal contact, said inner wall portion being a part of said bottom, said outer wall portion being a part of said cover, said circuit being implemented on a printed circuit board and the printed circuit board being mounted on the bottom.

4. A device according to claim 3, characterised in that it includes thermal paste between contacting parts of the bottom and the cover, said bottom and said cover being screwed (11).

5. A device according to claim 3 or 4, characterised in that said bottom includes a base plate (2.1) and a bottom side plate (2.2) and in that said cover includes a top plate (3.1) and a cover side plate (3.2), said bottom side plate forming said inner wall

portion, said cover side plate forming said outer wall portion and said printed circuit board being mounted substantially parallel to said base plate.

6. A device according to claim 5, characterised in that said cover side plate forms a lateral surface of said cubical casing, said air duct leading from a front surface to a rear surface of said cubical casing.

7. A device according to claim 6, characterised in that said air duct has an inlet, said inlet being formed by an end portion (10) of said bottom side plate that is bent to an inner side of the casing to increase the air flow (9.1) through said air duct, said at least one fan being arranged on the front surface of said cubical casing covering said inlet at least partially.

8. A device according to one of claims 1 to 7, characterised in that an additional heat sink (13, 14) is mounted within the air duct, being in thermal contact with said double wall portion.

9. A device according to one of claims 1 to 8, characterised in that said heat generating component is a power semiconductor.

10. A device (8) according to one of claims 1 to 9, characterised in that it includes at least two fans (7), the casing including a second double wall portion with an inner wall portion (2.1) and an outer wall portion (3.2) defining a second air duct (4), said second double wall portion being a second heat sink and said at least two fans being arranged such that an air flow produced by said at least two fans is directed through said air ducts respectively.

11. A device according to claim 10, characterised in that said casing is substantially cubical in shape and has two lateral surfaces, each air duct being arranged along one

of said lateral surfaces respectively and leading from a front surface of the cubical casing to a rear surface of the cubical casing.

12. A casing for an electrical and/or electronical device according to one of claims 1 to 11, the device including an electric and/or electronic circuit with a heat generating component and at least one fan, characterised in that the casing includes a double wall portion with an inner wall portion and an outer wall portion defining an air duct between the inner wall portion and the outer wall portion and being built such that said heat generating component is in thermal contact with the inner wall portion and that an air flow produced by said at least one fan is directed through said air duct, said double wall portion being a heat sink of the electronical device.